Deburr

Memo

Dwg Rev: R Folio Rev: A

Mill as per Dwg an Folio FA939

HAAS 1

HAAS CNC vertical machine #1

												DQA:	Da	ite: _	
NCR:	⁄es	/ No				WORK ORDER NON-C	100	VFORM	MANCE / UP	DATE		QA Closed:	Da	ıte:	
			<del></del>			DISDOSITION				ACAINCT D					
Work Orde	er:					DISPOSITION	DISPOSITION AGAINST DI			DEPARTMENT/PROCESS					
					<del></del>	Rework			Skid-tube	Crosstube	٦		Water Jet		Engineering
Part N	Part No.					Scrap		ſ	Machining	Small Fab		Pro	d. Eng. Coor.		Quality
						Use-as-is		Therm	noforming	Finishing		Rec/Stor	e/Packaging		Other
NCR N	۱o.					Work Order Update			Large Fab	Composite			Supplier		
			<del>,</del>	<del>,</del>							_		·		
Root						iption of work order update	ı	Initial	l	tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription		Date	Verificatio	n	QC Inspector
Doc/Data															
Equip/Tooling											-				
Operator															·
Material			1												
Setup											1				
Other			<u>.</u>				1				-				
Process											-				
Supplier											-				
Training							1							ŀ	
Unapproved															
						F/	<b>AUL</b>	T CATE	GORY		_				
Landi	ng (	Gear				General		-							ı
		Bending				Bend		Grain		L	_	Ovalized		Ш	Pressure/Forced
		Centre No	ot Concer	ntric to	o/s	BOM/Route	L	Hardwa	re			Over/Under	tolerance	Ш	Temperature/Cure
		Cracks			L	Broken/Damaged		Inspecti	ion Incomplete	L	_	Part Incorred	it .	Ш	Weld
	L	Crushed/	Crimped			Burrs		Instruct	ions Incomplete/	Unclear	_	Part Lost/Mi	ssing	Ш	Wrong Stock Pulled
		Cuffs				Contamination	1	Mainte	nance		-	Part Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Positioned Wrong

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Work Order ID 1073	353
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HandFinish

Hand Finishing

# \*107353\*

Page 2

September-23-13 11:48:53 AM \*N900040100\* Setup Start Accept D4073-1 Item ID: **Revision ID:** Stop Door Hinge Item Name: \*8\* 9/18/13 Start Qty: 8.00 **Cust Item ID: Start Date:** Req'd Qty: 8.00 Required Date: 9/23/13 **Customer:** Reference: Run **Tooling:** Date: \_\_\_\_\_ Date: Process Plan: Approvals: Stop SPC (Y/N): Date: QC: Date: Reject Reject Insp. Set Up/ Tool ID Tool # Plan Accept Sequence ID/ **Operation** Qty Qty Number Stamp -Code Work Center ID Description **Run Hours** 0.00 110 OC2- Inspect parts off machine FAI/FAIB 13/10/02 \*110\* 0.00 Memo Quality Control 0.00 OC8- Inspect parts - second check 120 \*120\* 0.00 QC Memo Quality Control 12 76/3.103 Chemical Conversion Coat per QSI005 4.1 0.00 150 \*150\*

0.00

Memo

		DQA:	Date:	
Voc / No	MADE ADDED NON CONFORMANCE / LIBRATE			

NCR: Y	'es	/ No				WORK ORDER NON-C		NFORM	MANCE / UPI	DATE	QA Closed:	Date	· :	
Work Orde		·				DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No.  NCR No.						Rework Scrap Use-as-is Work Order Update		Skid-tube Crossto  Machining Small  Thermoforming Finish  Large Fab Compo			4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root					Descri	ption of work order update	I	Initial	Act		Sign &			
Cause	$\Box$	Date	Step	Qty	(	or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	QC Inspector	
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved														
							AUL	T CATE	GORY				· · · · · · · · · · · · · · · · · · ·	
Landir						General	<u>.</u>	1		_	1	_	¬	
		Bending Centre No Cracks	ot Concei	ntric to	o/s	Bend BOM/Route Broken/Damaged		Grain Hardwa Inspecti	re on Incomplete	_	Ovalized Over/Under Part Incorred	<del></del>	Pressure/Forced Temperature/Cure Weld	
	$\overline{}$	Crushed/	Crimped			Burrs		4	ions Incomplete/L	Jnclear -	Part Lost/Mi	<u> </u>	Wrong Stock Pulled	
	_	Cuffs	•		<u> </u>	Contamination		Mainte	' <del>-</del> '		Part Moved			
		Heat Trea	it			Countersink		Mislabe	led		Positioned V	Vrong		
		Inspection	n Strip in	Tube		Cut Too Short		Misread	I		Power Loss/	Surge	Other	
		Ripples in	Bend			Drill Holes		Offset						
		Torque W	/aves in E	Extrusio	n	Drawing		Out of 0	Calibration					
	Turning Sequence				Finish		Out of Sequence							

Outside Dimensions

Wave/Twist in Tube

Folio

miablas

QC3- Inspect Part Finish

\*170\* OC

170

180

Quality Control

Memo

0.00

0.00

124 1 2/13/10/01

Identify as per dwg & Stock Location:

\*120\*

Packaging

0.00

Packaging

Memo

DQA: Date:	_
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NCR: Yes / No

## **WORK ORDER NON-CONFORMANCE / UPDATE**

								·			QA Closed:	Date	e:
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	- . No.					Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Prod. Eng. Coor.  e-as-is Thermoforming Finishing Rec/Store/Packaging						Engineering Quality Other
Root	Root Desc					ption of work order update	ir	nitial	Ac	ction	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Chi	ef Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling							1						
Operator								ı					
Material													
Setup												1	
Other												ľ	
Process								ļ				1	
Supplier												ľ	
Training	Ш							ļ	-			1	
Unapproved							<u> </u>						
						F	AULT	CATE	GORY				,
Landi					_	General	_				<b>-</b> 1	_	<del></del> -
	-	Bending			<u> </u>	Bend		Grain		<u> </u>	Ovalized		Pressure/Forced
	$\vdash$	Centre No	ot Concer	ntric to	o/s	BOM/Route	-	Hardwa		<u> </u>	Over/Under	-	Temperature/Cure
		Cracks			_	Broken/Damaged	-		on Incomplete	<u> </u>	Part Incorred	<b>-</b>	Weld
	-	Crushed/0	Crimped		<u> </u>	Burrs			ions Incomplete/	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
/ "c		Cuffs			<u> </u>	Contamination	$\vdash$	Mainte			Part Moved		
39	-	Heat Trea			<u> </u>	Countersink	$\vdash$	Mislabe		_	Positioned V		_
:	$\vdash$	Inspection	•	Tube	<u> </u>	Cut Too Short	$\vdash$	Misreac	I	L	Power Loss/	Surge	Other
	$\sqcup$	Ripples in				Drill Holes	-	Offset					
		Torque W			n	Drawing	$\vdash$		Calibration				
	Turning Sequence Finish			$\vdash$		equence							
İ	Wave/Twist in Tube Folio			Folio	1 1	Outside	Dimensions						

Work Order September-23-13				*107	7353*		······································		Page
Item ID: E Revision ID: Item Name: E	D4073-1 Door Hinge D/18/13	Start Qty: 8.00 Req'd Qty: 8.00	*8* *8*	Accept	*N900040  Cust Item ID: Customer:	1100*	Setup	Start Stop	*NS1* *NS2*
·	Process Plan	n:	Date:	Tooling: SPC (Y/N):	Date:		Run	Start Stop	*NR1* *NR2*
Sequence ID/ Work Center ID  190 *100* QC Quality Control		Operation Description QC21- Final Inspection Memo	· Work Order Release	Set Up/ Run Hours 0.00 -	Tool ID Tool #	Code Qty	pt Rej Qts Rm	13	Reject Insp. Number Stamp

				DQA:	Date:	
NCR:	Yes /	No	WORK ORDER NON-CONFORMANCE / UPDATE			

											QA Closed:	Date	2:
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT,		
Part No.  NCR No.						Scrap Machining Small Fa Use-as-is Thermoforming Finishin			Crosstube Small Fab Finishing Composite	Prod. Eng. Coor. Quality  Rec/Store/Packaging Other			
Root					Descri	ption of work order update	Ti	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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Equip/Tooling									1				
Operator											:		
Material													
Setup													
Other	Ш												
Process									·				
Supplier													
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Unapproved													
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	—	nding			<u> </u>	Bend	$\vdash$	Grain			Ovalized	L	Pressure/Forced
	⊢		t Concer	ntric to	o/s	BOM/Route		Hardwa			Over/Under	tolerance	Temperature/Cure
	—	acks			L	Broken/Damaged	_	1	ion Incomplete		Part Incorred	<b>├-</b>	Weld
	—		Crimped		<u> </u>	Burrs		•	tions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
]	Щcı	Cuffs Contamination			Contamination		Mainte	nance		Part Moved			
ļ	Heat Treat Countersink			Countersink		Mislabe	eled:		Positioned V	_	_		
i	Inspection Strip in Tube Cut Too Short			╡	-	Misread	t		Power Loss/	Surge	Other		
ļ	Ripples in Bend Drill Holes					Offset							
	Torque Waves in Extrusion Drawing				Out of Calibration								
	Turning Sequence Finish						Out of S	Sequence					
i	Wave/Twist in Tube Folio				Folio		Outside	Dimensions				•	

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Page 1/

Work Order ID:

107353

Parent Item:

D4073-1

Parent Item Name:

Door Hinge

**Start Date: 9/18/13** 

Required Date: 9/23/13

ant 13/09/30

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP REV:A NEW ISSUE 10-06-08 JLM VERIFIED BY:DD

3Y:DD IP

IPP REV:B DRAWING REV.

HANGE AS DE	R ECN 11-598	11-07-05	IFS	VERIFIED:	RY.
HANGE AS FE	JK EUN 11-390	11-07-03	11.3	VUNITUD.	υ.

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M6061T6B2.000X01.250</b> 6061-T6 Bar 2.00 x 1.25		Purchased	No			100	f	31.6690	0.38	3.2			

<u>Location</u>	Loc Qty	Loc Code	
MAT009	31.66902716		
123649	0.00002716		
<b></b> 124573	3.865		3,8
M126043	20.45		-
→ M126075	7.354	1.2	. 在

DQA:		Date:			
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NCR: Yes / No

### **WORK ORDER NON-CONFORMANCE / UPDATE**

,	•									QA Closed:	Date	:
Work Orde	ŕ:				DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Part No.					Rework Skid-tube Machining Use-as-is Thermoforming			Crosstube Small Fab Finishing	4	Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other	
NCR N	0			<del></del>	Work Order Update	]		Large Fab	Composite		Supplier	
Root				Descr	iption of work order update	In	nitial	Ac	ction	Sign &		
Cause	Date	Step	Qty	İ	or Non-conformance	Chi	ef Eng	Desc	cription	Date	Verification	QC Inspector
oc/Data		·										
quip/Tooling							į					
Operator												
/laterial ·									•			
etup												
Other					•							
rocess												
Supplier												
raining												
Inapproved	<u></u>		L									
					<del></del>	AULT	CATE	GORY				
Landin F	_				General		<b>.</b>		<del>[</del>	1		٦. /- ا
1	Bending			_,_  -	Bend	<del></del>	Grain			Ovalized		Pressure/Forced
ŀ	Centre N	ot Conce	ntric to	<sup>0/s</sup>  -	BOM/Route	-	Hardwa		<del> </del>	Over/Under		Temperature/Cure
	Cracks	/C		-	Broken/Damaged		-	on Incomplete	(( to al a a a	Part Incorred	<u> </u>	Weld
-	Crushed/	Crimpea		-	Burrs	$\vdash$		ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs			-	Contamination	$\vdash$	Mainte		<u> </u>	Part Moved		
}	Heat Trea		Tubo	-	Countersink	⊢—	Mislabe		<u> </u>	Positioned V	_	Other
ŀ	Inspection Ripples in		rube	-	Cut Too Short Drill Holes		Misread Offset	I		Power Loss/	ourge	Other
}	Torque V		Evtrucio	<u> </u>	Drawing	-		Calibration				
}	Turning			"  -	Finish	-		equence	•			
ŀ	Waye/Tw	-		.  -	Folio	$\vdash$		Dimensions				·

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DART AEROSPACE LTD	Work Order:	107353
Description: Door Hinge	Part Number:	D4073-1
Inspection Dwg: D4073 Rev: B		Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.13	+/-0.030	R 0.125	~		R-6	ref.
Ø0.203	+0.005/-0.001	\$0.204	1		Vern	6A-01
2.00	+/-0.030	1.999	<b>✓</b>		11 ,	11
0.81	+/-0.030	808.0	V		U	<b>1</b> 1
0.350	+/-0.010	0.351	~		1)	ı)
1.100	+/-0.010	1.100	✓		11	1
Ø0.500 x 0.125	+/-0.010	\$0.502 XO.	6		11	1)
0.340	+/-0.010	0.340	✓		11	1
1.320	+/-0.010	1.320	~		11	14
4.44	+/-0.030	4.440	/		H-6	31006
4.13	+/-0.030	4.127	<b>✓</b>		(4	11
R0.31	+/-0.030	RO.312	<b>✓</b>		R-6	ref.
0.313	+/-0.010	0.313	~		H-6	31006
0.63	+/-0.030	0.625	~		Veco	6A-01
1.00	+/-0.030	1.000	Ý		l)	11
0.38	+/-0.030	0.376	~		D-6	6A-08
0.190	+/-0.010	0.187	~		Veca	6A-01
1.80	+/-0.030	1.802	✓		<b>SC</b>	10
0.25	+/-0.030	0.247	~		11	(1
R0.13	+/-0.030	RO.125	✓		R-6	ref.
	<u>:</u>	·	L DAS			

Measured by: \$ OAS	Audited by:	Preliminary Approval:
Date: 13/10/02 28	Date: 13/0/02	Date:

Rev	Date	Change	Revis	ed by	Approved
Α	11.07.26	New Issue	KJ	OX.	M
				7 1	

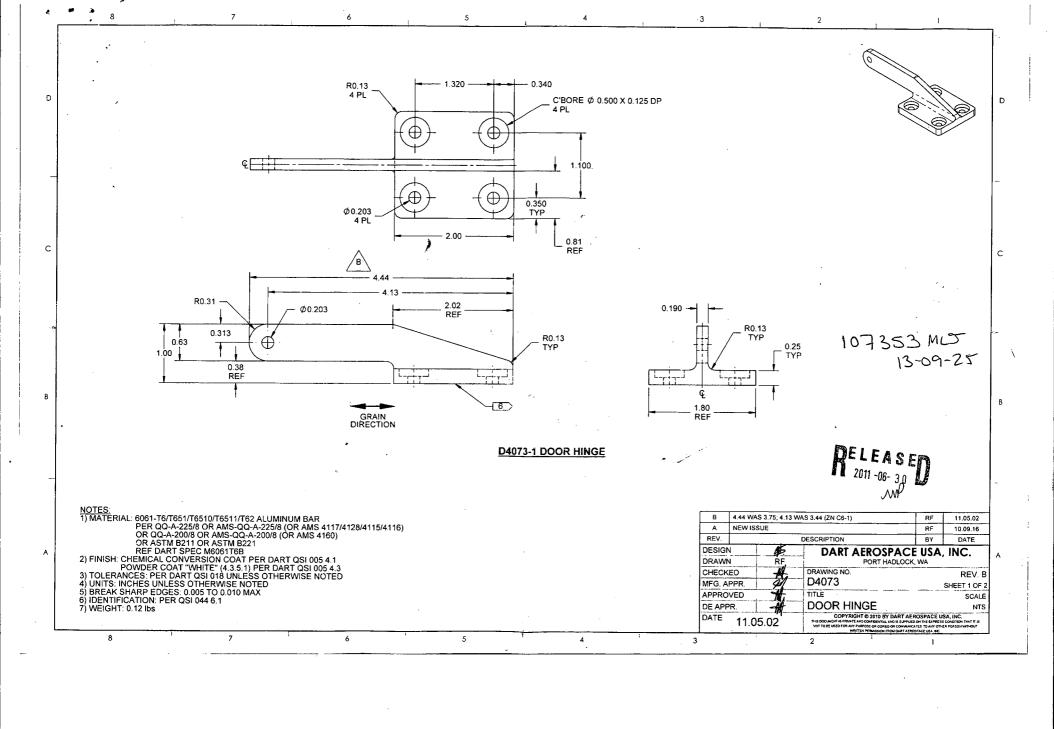
DQA: \_\_\_\_\_ Date: \_\_\_\_

NCR: Yes / No

#### **WORK ORDER NON-CONFORMANCE / UPDATE**

NCA.	62	/ 110					WORK ORDER NON-C	JUI	<b>VIFORI</b>	MAINCE / UPL	JAIE	QA Closed:	Dat	te:	•
Work Orde	Order: DISPOSITION								AGAINST DEPARTMENT/PROCESS						
	Part No.						Rework Scrap			Skid-tube Crosstube Machining Small Fab			Water Jet d. Eng. Coor.		Engineering Quality Other
NCR N	lo.				<del></del> -		Use-as-is Work Order Update	]	1	Large Fab	Finishing Composite	, Rec/sto	re/Packaging Supplier	-	Other
Root					Desc	ript	ion of work order update		nitial	Act	ion	Sign &			
Cause		Date	Step	Qty		or	Non-conformance	Ch	ief Eng	Descr	ription	Date C	· Verification	n	QC Inspector
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		Bending			L		end	<u>_</u>	Grain			Ovalized		ш	Pressure/Forced
		Centre No	t Concer	ntric to (	o/s	— 1	OM/Route		Hardwa			Over/Under	1	$\boldsymbol{\vdash}$	Temperature/Cure
		Cracks			L	→	roken/Damaged	<u></u>	1 '	on Incomplete	_	Part Incorre	1		Weld
		Crushed/0	Crimped		1	_	urrs	$\vdash$	1	ons Incomplete/U	Jnclear	Part Lost/M	issing		Wrong Stock Pulled
		Cuffs			-		ontamination	<u> </u>	Mainte		<u> </u>	Part Moved			
		Heat Treat					Countersink	<u>_</u>	Mislabe		ļ	Positioned V	r		
		Inspection	*	Tube	-		ut Too Short		Misread		L.	Power Loss/	Surge	Ш	Other
	_	Ripples in		_		_	Orill Holes	<u></u>	Offset		,				
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		Wave/Twi	ist in Tub	e e		F	olio	1	Outside	Dimensions					_

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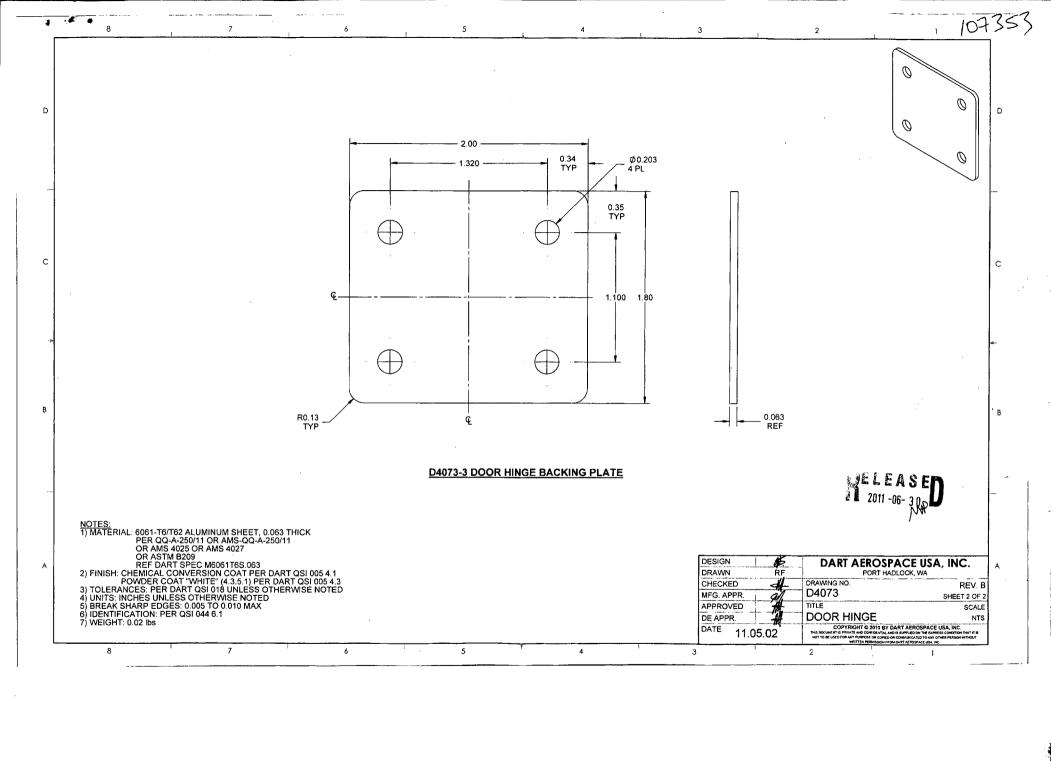
		· ·
DQA:	Date:	

NCR: Yes / No

### **WORK ORDER NON-CONFORMANCE / UPDATE**

										QA Closed:	Da	te:	
Work Orde	er:					DISPOSITION			AGAINST DE	PARTMENT	/PROCESS		
Part No.						Rework Scrap Use-as-is Th		Skid-tube Crosstube Small Fab Thermoforming Finishing		Water Jet Prod. Eng. Coor. Rec/Store/Packaging		Quality	
NCR N	No					Work Order Update	]   '''	Large Fab	Composite	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			
Root					Descri	ption of work order update	Initia	1 4	Action	Sign &			
Cause		Date	Step	Qty	(	or Non-conformance	Chief E	ng De	scription	Date	Verification	n QC Inspector	
Doc/Data													
Equip/Tooling							•						
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Material				]									
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						F	AULT CA	TEGORY			<u> </u>		
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	В	ending				Bend	Grai	n		Ovalized		Pressure/Forced	
	C	entre No	t Concer	ntric to (	o/s	BOM/Route	Hard	lware		Over/Under	tolerance	Temperature/Cure	
	c	racks			L	Broken/Damaged	Insp	ection Incomplete		Part Incorre	ct .	Weld	
	c	rushed/0	Crimped			Burrs	Instr	uctions Incomplete	e/Unclear	Part Lost/M	issing	Wrong Stock Pulled	
	Шc	uffs		٠	L	Contamination	Mai	ntenance		Part Moved			
	Н	leat Trea	t			Countersink	Misl	abeled		Positioned V	Vrong		
	∐]Ir	rspection	n Strip in	Tube		Cut Too Short	Misr	ead		Power Loss/	Surge	Other	
	R	ipples in	Bend			Drill Holes	Offs	et					
	Шт	orque W	aves in E	xtrusion	1 _	Drawing	Out	of Calibration	•				
	∐т	urning S	equence			Finish	Out	of Sequence					
	Wave/Twist in Tube							Outside Dimensions					

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i											DQA:	Date:	
NCR: Y	'es /	No				WORK ORDER NO	N-COI	NFORM	MANCE / UP	DATE	QA Closed:	Date:	
Work Orde	er:					DISPOSITION	DISPOSITION AGAINS			AGAINST [	DEPARTMENT	/PROCESS	
Part No						Scrap Use-as-is	Rework Skid-tube Crosstube Scrap Machining Small Fab Thermoforming Finishing Work Order Update Large Fab Composite				Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
	ومود		न उत्पादम्यः	<b>1</b> 50								<u> </u>	,
Root Cause	.  D	ate	Step	Qty	Desc	ription of work order updat or Non-conformance		nitial lief Eng		tion ription	Sign & Date	Verification	QC Inspector
oc/Data quip/Tooling Operator Material etup Other Process supplier raining Mapproved								Ü		•			
			L			•	FAUL	T CATE	GORY		<u> </u>	1	
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	Cer Cra Cru Cuf Hea Ins	cks shed/ fs it Trea pection	n Strip in		o/s	Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Grain  Hardware  Inspection Incomplete  Instructions Incomplete/Unclear  Maintenance  Mislabeled  Misread			Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct sissing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	_		n Bend Vaves in E	Extrucio	<u>'</u>	Drill Holes Drawing	,.	Offset	Calibration	;			
•		•	eanence		'' <u>'</u>		*	1	Sequence	·			

Outside Dimensions

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Wave/Twist in Tube

Folio